

[illegible]

(2)	45	DECLARATIONS
(3)	67	LNK\$CALCELAPS

LNK_ELAPSTIMS
V04=000

G 3

15-SEP-1984 23:55:28 VAX/VMS Macro V04-00
5-SEP-1984 01:42:33 [LINKER.SRC]LNKELAPST.MAR;1

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```
0000 1      .TITLE LNK_ELAPSTIMS
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6
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0000 24
0000 25 *****
0000 26
0000 27
0000 28
0000 29      ++
0000 30      FACILITY:      LINKER
0000 31
0000 32      ABSTRACT:      COMPUTE AN ELAPSED TIME FROM TWO ABSOLUTE TIMES
0000 33
0000 34
0000 35      ENVIRONMENT:
0000 36
0000 37      AUTHOR:         T.J. PORTER, CREATION DATE: 27-JUN-77
0000 38
0000 39      MODIFIED BY:
0000 40
0000 41      V02-001 BLS0035      Benn Schreiber      19-Jan-1981
0000 42      Change to longword displacement
0000 43      --
```


DECLARATIONS

```

0000 45      .SBTTL  DECLARATIONS
0000 46      ;
0000 47      ; INCLUDE FILES:
0000 48      ;
0000 49      ;
0000 50      ;
0000 51      ; MACROS:
0000 52      ;
0000 53      ;
0000 54      ;
0000 55      ; EQUATED SYMBOLS:
0000 56      ;
00000004 0000 57 TIMEADDR1 = 4      ; FIRST ARGUMENT IS TIME 1 ADDRESS
00000008 0000 58 TIMEADDR2 = 8      ; SECOND IS ADDRESS OF TIME 2
0000 59      ;
0000 60      ; OWN STORAGE:
0000 61      ;
00000000 0000 62      .PSECT  $OWNS,NOEXE,QUAD
00000000 0000 63 ELAPSED:
00000000 0000 64      .QUAD  0      ; THE COMPUTED ELAPSED TIME
0008 65

```

LNK\$CALCELAPS

```
0008 67 .SBTTL LNK$CALCELAPS
0008 68 :++
0008 69 : FUNCTIONAL DESCRIPTION:
0008 70 :
0008 71 : THIS ROUTINE IS CALLED TO CALCULATE THE ELAPSED TIME BETWEEN TWO
0008 72 : ABSOLUTE TIME VALUES. THE ADDRESS OF THE RESULT IS RETURNED AS THE VALUE OF
0008 73 : THE ELAPSED TIME IS IN THE 'DELTA TIME' FORMAT OF THE SYSTEM AND
0008 74 : IS THEREFORE SUITABLE FOR DISPLAYING THROUGH SYSTEM SERVICES
0008 75 : SUCH AS FAO XT.
0008 76 :
0008 77 : CALLING SEQUENCE:
0008 78 :
0008 79 : LNK$CALCELAPS(TIMEADDR1,TIMEADDR2)
0008 80 :
0008 81 : WHERE: TIMEADDR1 = ADDRESS OF A QUADWORD CONTAINING THE
0008 82 : START TIME
0008 83 : TIMEADDR2 = ADDRESS OF A QUADWORD CONTAINING THE
0008 84 : END TIME.
0008 85 :
0008 86 : INPUT PARAMETERS:
0008 87 :
0008 88 : AS ABOVE
0008 89 :
0008 90 : IMPLICIT INPUTS:
0008 91 :
0008 92 : NONE
0008 93 :
0008 94 : OUTPUT PARAMETERS:
0008 95 :
0008 96 : THE ROUTINE HAS AS ITS VALUE (I.E. CONTENT RETURNED IN R0)
0008 97 : THE ADDRESS OF AN OWN QUADWORD CONTAINING THE VALUE
0008 98 : TIME1 - TIME2
0008 99 : WHICH IS (PRESUMABLY) NEGATIVE.
0008 100 :
0008 101 : IMPLICIT OUTPUTS:
0008 102 :
0008 103 : NONE
0008 104 :
0008 105 : COMPLETION CODES:
0008 106 :
0008 107 : NONE
0008 108 :
0008 109 : SIDE EFFECTS:
0008 110 :
0008 111 : NONE
0008 112 :
0008 113 :
0008 114 :
0008 115 : --
0008 116 :
00000000 117 .PSECT $CODE$,NOWRT, LONG
0000 118 LNK$CALCELAPS::
0000 119 .WORD 0
50 00000000'EF 9E 0002 120 MOVAB L*ELAPSED,R0 ; GET ADDRESS OF QUADWORD TO RECEIVE RESULT
51 08 AC D0 0009 121 MOVL TIMEADDR2(AP),R1 ; GET ADDRESS OF TIME 2
60 04 BC 7D 000D 122 MOVQ @TIMEADDR1(AP),(R0) ; INITIALIZE RESULT WITH TIME 1
60 81 C2 0011 123 SUBL (R1)+,(R0) ; SUBTRACT LOW ORDER HALF OF
```

LNK_ELAPSTIMS
V04=000

LNK\$CALCELAPS

04	A0	61	D9	0014	124
			04	0018	125
				0019	126

SBWC
RET
.END

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(3)

(R1),4(R0)

; TIME 2 THEN HIGH ORDER HALF WITH CARRY
; FROM CORRESPONDING HALVES OF TIME 1

LNK
V04

; R

...

.....

.....

...

.....
S
B
R
J
M
C

LNK ELAPSTIMS
Symbol table

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ELAPSED 00000000 R 01
LNK\$CALCELAPS 00000000 RG 02
TIMEADDR1 = 00000004
TIMEADDR2 = 00000008

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$OWNS	00000008 (8.)	01 (1.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC QUAD
\$CODE\$	00000019 (25.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC LONG

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	33	00:00:00.06	00:00:01.11
Command processing	103	00:00:00.50	00:00:02.81
Pass 1	67	00:00:00.35	00:00:01.49
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	38	00:00:00.32	00:00:01.62
Symbol table output	2	00:00:00.01	00:00:00.02
Psect synopsis output	1	00:00:00.02	00:00:00.06
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	246	00:00:01.28	00:00:07.17

The working set limit was 900 pages.
1255 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 4 non-local and 0 local symbols.
126 source lines were read in Pass 1, producing 13 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:LNKELAPST/OBJ=OBJ\$:LNKELAPST MSRC\$:LNKELAPST/UPDATE=(ENH\$:LNKELAPST)

0216 AH-BT13A-SE
VAX/VMS V4.0

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